REMARKS/ARGUMENTS

This Amendment is responsive to the Office Action mailed September 2, 2004. A petition and fee for a two month of extension of time is attached. Any additional fees in connection with this Amendment should be charged to our Deposit Account No. 19-3320.

In that Office Action, the Examiner confirmed the restriction requirement, under 35 U.S.C. § 121, and the election of claims 3-13 for prosecution on the merits to which the claims will be restricted if no generic claims are held to be allowable. The Examiner then rejected claims 3 and 9 under 35 U.S.C. § 102(a) as being "anticipated" by U.S. Patent No. 4,310,974 (*Gdovin et al.*), rejected claims 9-13 under 35 U.S.C. § 102(b) as being "anticipated" by U.S. Patent No. 6,082,886 (*Stanford*), and rejected claims 4-8 under 35 U.S.C. § 102(e) as being "anticipated" by U.S. Patent Application Publication No. 2003/0113081 (*Melby*).

This application now contains a total of eleven claims. Of these, claims 3, 4, 6 and 9 are presented in independent form. Claim 5 is dependent on independent claim 4, claims 7-8 are dependent on independent claim 6, and claims 10-13 are dependent on independent claim 9. Such dependent claims are to be construed as incorporating all of the limitations of the respective independent claim to which they refer. 35 U.S.C. § 112. If each of the independent claims distinguish patentably from the prior art and are allowable, then each of their respective trailing dependent claims must so distinguish and be allowable. *In re Fine*, 837 F.2d 1371, 1376, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). Consequently, the following remarks will focus on the reasons why the cited references do not teach or suggest the combination of features set forth in claims 3, 4, 6 and 9, as amended, respectively.

Rejection Based on *Gdovin et al.*

The Examiner rejected claims 3 and 9 under 35 U.S.C. § 102(b) as being "anticipated" by *Gdovin et al.* *Gdovin et al.* teaches a simulated light system for an airfield model in which the protruding output end of an optical fiber is used to simulate airfield lighting on the model. *Gdovin et al.* is directed towards a miniaturized model, and not an actual airfield nor an artificial turf playing surface.

Applicant has amended claim 3 to clearly indicate that the method claimed is for marking a playing surface having artificial turf fibers. The method involves the step of, among other things, providing a playing surface having artificial turf fibers. It is respectfully submitted that *Gdovin et al.* does not teach a method of lighting a playing surface having artificial turf fibers. Accordingly, Applicant respectfully requests reconsideration of the rejection of claim 3 as being "anticipated" under 35 U.S.C. § 102. In order to "anticipate" a claim, a reference must disclose each and every element and limitation of the claim. *Hoover v. Custom Metal Craft, Inc.*, 66 F.3d 299, 302, 36 USPQ 1101, 1103 (Fed. Cir. 1995). *Gdovin et al.* does not disclose each and every element and limitation of claim 3, as amended.

With respect to claim 9, it is respectfully submitted that *Gdovin et al.* does not teach the step of trimming the optical material such that it is flush with the surface. In fact, *Gdovin et al.* teaches the exact opposite, namely the notion of having precut optical material extend slightly above the surface and at an angle to the surface, as shown in Figs. 3 and 5 of *Gdovin et al.* By having the optical material extend above the surface, the output ends of the fibers can be beveled to simulate omnidirectional or unidirectional lights.

The Examiner, in support of the rejection of claim 9, points to column 5, lines 44-47 and

states: "As to claim 9, the protruding fiber may be polished, ground or angled to provide unidirectional light, omnidirectional light or any other variation in directionality of the output light (column 5, lines 44-47)." It is respectfully submitted that this language does not teach the step of trimming the optical material such that it is flush with the surface after the step of arranging the optical material such that it extends above the surface, as required in amended claim 9. Rather, this language appears to teach the notion of cutting the output ends of the fibers at one or more angles so that they extend or protrude beyond the surface in a manner that can provide unidirectional light (if angled as shown in the end 45a of Fig. 3) or omnidirectional light (if angled as shown in the end 45b of Fig. 3). The described polishing, grinding or angling does not result in the end being flush with the surface.

Furthermore, these angles appear to be made before the optical material is even put in place. Column 5, lines 18-20, states that "[t]he fiber is fabricated so that its length equals the depth of counterbore 39 plus the desired protrusion of its output end beyond surface 10a. When inserted in counterbore 39, the input end of precision cut fiber 45 will rest on the step at the bottom of the counterbore, and the output end will protrude a desired distance beyond the exposed surface of the airfield plate (typically a distance on the order of the diameter of the fiber, *e.g.*, 0.030")." (Emphasis added). In fact, the specification goes on to state at column 5, lines 29-33: "[i]n a preferred embodiment, the depth of the counterbore and the length of the fiber are each controlled within about 0.002", thereby ensuring that the protrusion of the fiber end is within acceptable limits." (Emphasis added).

This disclosure seems to clearly indicate two things: first, that the ends of the fibers are not flush with the surface, but rather extend or protrude beyond that surface; and second, that the fibers

are precision cut before being inserted and are not trimmed after being inserted.

Nor is the solid block 51 shown in Fig. 3 a mechanism for grinding or trimming the ends of the fibers. Rather, the "tool comprises a small rectangular solid block 51 having one of its corners cut off at an edge which matches that formed at the output end of the precision cut optical fiber. A very thin layer of non-abrasive material 53, *e.g.*, cork, can be placed on the beveled face of block 51. The block is first orientated with respect to a datum line, *e.g.*, the center line of a model runway, and then the precision cut fiber 45a being aligned, is rotated, until its output face is orientated parallel to the beveled face of the block." (column 5, lines 50-59) (Emphasis added).

In contrast, claim 9, as amended, calls for arranging the optical material such that it extends above the surface and then trimming the optical material such that it is flush with such surface. It is respectfully submitted that *Gdovin et al.* teaches the exact opposite, namely precision cutting the optical fiber and arranging the optical fiber so that it is beveled and protrudes above the surface. Accordingly, Applicant respectfully requests reconsideration of the rejection of claim 9 as being "anticipated" by *Gdovin et al. Gdovin et al.* does not disclose each and every element and limitation of claim 9, as amended.

Rejection Based on *Stanford*

The Examiner rejected claims 9-13 under 35 U.S.C. § 102(b) as being anticipated by *Stanford. Stanford* teaches a paving block or stone which includes a plurality of optical fibers. The fibers have a second end 30 which is positioned to be exposed at the top surface 14 of the block to define a point of light. Column 6, lines 4-10, teach that "[t]he light is distributed to the second ends 30 which are arrayed and terminated flush with the top surface 14." While the Examiner seems to suggest that this teaches trimming the optical material such that it is flush with the surface, it is

respectfully submitted that *Stanford* simply does not teach arranging the ends 30 above the top surface 14 and then trimming them. Rather, *Stanford* teaches the exact opposite, namely that the ends are arrayed and "terminated," or positioned, flush with the top of the surface. *Stanford* teaches that the positioning of the ends of the fibers 30 flush with the top of the surface is a fairly precise step, explaining that "[t]he optical fibers 20 may be accurately positioned utilizing a computer-controlled assembly or any other suitable means." (column 6, lines 41-43). Thus, there is simply no teaching of either extending the ends beyond being flush with the top surface or of then trimming those ends. Rather, *Stanford* appears to teach a system in which the ends of the fibers are, with the assistance of a computer, arrayed to terminate flush with the top surface.

In contrast to *Stanford*, claim 9 calls for arranging the optical material such that it extends above the surface and then trimming it so that it is flush with that surface. It is respectfully submitted that the Examiner improperly reads these steps into *Stanford*, when in fact *Stanford* simply does not teach either of these steps. Accordingly, Applicant respectfully requests reconsideration of the rejection of claim 9 as being "anticipated" by *Stanford*. *Stanford* does not disclose each and every element and limitation of claim 9, as amended.

Rejection Based on *Melby*

The Examiner rejected claims 4-8 under 35 U.S.C. § 102(e) as being "anticipated" by *Melby*. *Melby* teaches a product for reflecting light in which a backing layer of flexible material has a number of optical fiber threads incorporated into it. The Examiner referred to paragraph 18 in support of the position that *Melby* teaches providing artificial fibers. However, paragraph 18 does not appear to teach providing artificial fibers and threading such artificial fibers through a backing layer. Paragraph 18 of *Melby* discloses a product "comprising at least one layer of flexible material,

for example weave, in which flexible material there is incorporated a number of optical fiber threads, each of which comprises an input surface for interception of the incoming light, and an output surface for emission of the light intercepted by the input surface, said surfaces be connected by a body through which the incoming light is conducted from the input surface to the output surface, said output surface and said input surface lying free of the layer of flexible material. . . . The procedure according to the invention is characterized in that the flexible material comprises two separate, vertically-displaced and substantially plane parallel layers, a first layer and a second layer, said layers being held together by the incorporating of at least one optical fiber thread." Paragraph 46 provides more detail:

> With use of two layers 3, the incorporation of a single optical fiber thread 6 can be effected in accordance with known technique, the so-called Raschel method, where the optical fiber thread 6 is fed through the first layer 3a through a mesh 14, out through the underlying surface 5 and up towards the first surface 4 of the second layer and through the second layer 3b, after which a U-turn is made down towards the layer again, and thereafter the optical fiber thread 6 perforates the second layer and goes down towards the first layer 3a. In this way there is effected a form of continuous sewing together in loops of the first and second layer. When this part of the process has been completed, a separation of the two layers 3 is carried out by effecting a cut in the area corresponding to the part surface between the first layer 3a and the second layer 3b.

Melby then teaches that the optical fibers may be cut midway between layers 3a and 3b to provide two independent portions, each having a primary backing and optical fibers extending up from that backing, the optical fibers having two ends 11 and 12, as shown in Fig. 8.

Thus, referring to Fig. 8, *Melby* seems to teach an analogous primary backing layer (3a) and an analogous optical material (ends 11 and 12 of fiber 6) threaded through the primary backing layer (3a). However, *Melby* does not teach the step of providing artificial fibers and threading those

artificial fibers through the primary backing layer to extend therefrom. While *Melby* teaches a primary backing layer 3a or 3b which may be a planar woven matrix, it does not teach providing artificial fibers that are threaded through and extend from such primary backing layer. Claim 6 as amended requires the step of providing a surface having a backing and artificial turf fibers extending from the backing. As described above, *Melby* does not teach such extending artificial turf fibers. Claim 4 requires the step of providing artificial turf fibers and threading the artificial turf fibers through a primary backing layer so they extend from the backing layer. As explained above, *Melby* simply does not teach the step of providing artificial turf fibers and threading those artificial turf fibers through the primary backing layer to extend therefrom.

Accordingly, Applicant respectfully requests further examination and reconsideration of the rejection of claims 4 and 6 in light of this Amendment. It is respectfully submitted that *Melby* does not teach each and every limitation of claim 4 or claim 6.

This Amendment is believed to be fully responsive to the Office Action of September 2, 2004, is believed to squarely address each and every ground for objection or rejection raised by the Examiner, and is further believed to materially advance the prosecution of this application toward immediate allowance.

Formal allowance of claims 3-13 in light of this Amendment is, therefore, courteously solicited.